

L Number	Hits	Search Text	DB	Time stamp
2	627	("560/41").CCLS.	USPAT; EPO; JPO; DERWENT	2001/12/21 08:11
4	145376	crystalliz\$	USPAT; EPO; JPO; DERWENT	2001/12/21 08:11
5	253	(("560/41").CCLS.) and crystalliz\$	USPAT; EPO; JPO; DERWENT	2001/12/21 08:49
6	12490	dimethylbut\$	USPAT; EPO; JPO; DERWENT	2001/12/21 08:11
8	153364	X-ray	USPAT; EPO; JPO; DERWENT	2001/12/21 08:11
9	225	neohexyl\$	USPAT; EPO; JPO; DERWENT	2001/12/21 08:11
11	12645	neohexyl\$ or dimethylbut\$	USPAT; EPO; JPO; DERWENT	2001/12/21 08:11
12	30	(neohexyl\$ or dimethylbut\$) and (("560/41").CCLS.)	USPAT; EPO; JPO; DERWENT	2001/12/21 08:11
13	116254	seed	USPAT; EPO; JPO; DERWENT	2001/12/21 08:11
15	177349	seed\$	USPAT; EPO; JPO; DERWENT	2001/12/21 08:11
16	4462	aspartame	USPAT; EPO; JPO; DERWENT	2001/12/21 08:11
17	88	(neohexyl\$ or dimethylbut\$) and aspartame	USPAT; EPO; JPO; DERWENT	2001/12/21 08:11
20	7924	seed\$ and X-ray	USPAT; EPO; JPO; DERWENT	2001/12/21 08:12
21	0	seed\$ and (("crystalliz\$").PN.)	USPAT; EPO; JPO; DERWENT	2001/12/21 08:12
22	0	X-ray and (("crystalliz\$").PN.)	USPAT; EPO; JPO; DERWENT	2001/12/21 08:12
23	687	seed\$ and aspartame	USPAT; EPO; JPO; DERWENT	2001/12/21 08:12
28	10511	seed adj crystal	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
29	18971	polymorph\$	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
31	44	neotame	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
1	3	("5510508").PN.	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
3	3	("5773640").PN.	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
7	15	((("560/41").CCLS.) and crystalliz\$) and dimethylbut\$	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
10	5	neohexyl\$ and (("560/41").CCLS.)	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13

14	5	((neohexyl\$ or dimethylbut\$) and (("560/41").CCLS.)) and seed	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
18	5	seed\$ and ((neohexyl\$ or dimethylbut\$) and aspartame)	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
19	3	("5480668").PN.	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
24	1		USPAT	2001/12/21 08:13
25	10	((("560/41").CCLS.) and (seed\$ and aspartame)	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
26	1		USPAT	2001/12/21 08:13
27	2	5502238.URPN.	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
30	69	(seed adj crystal) and polymorph\$	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
32	3	seed\$ and neotame	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
33	3	5728862.pn.	USPAT; EPO; JPO; DERWENT	2001/12/21 08:13
34	2	3266871.pn.	USPAT; EPO; JPO; DERWENT	2001/12/21 08:31
35	3	9524420.pn.	USPAT; EPO; JPO; DERWENT	2001/12/21 08:31
36	276	("560/40").CCLS.	USPAT; EPO; JPO; DERWENT	2001/12/21 08:49

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
1	IS&R	L2	627	("560/41").CCLS.	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:11		
2	BRS	L4	14537 6	crystalliz\$	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:11		
3	BRS	L5	253	(("560/41").CCLS.) and crystalliz\$	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:49		
4	BRS	L6	12490	dimethylbut\$	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:11		
5	BRS	L8	15336 4	X-ray	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:11		
6	BRS	L9	225	neohexyl\$	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:11		
7	BRS	L11	12645	neohexyl\$ or dimethylbut\$	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:11		
8	BRS	L12	30	(neohexyl\$ or dimethylbut\$) and (("560/41").CCLS.)	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:11		
9	BRS	L13	11625 4	seed	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:11		
10	BRS	L15	17734 9	seed\$	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:11		Truncation Overflow. Return string from Server is: 5`0`0`SEE

	Errors
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	1

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
11	BRS	L16	4462	aspartame	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:11		
12	BRS	L17	88	(neohexyl\$ or dimethylbut\$) and aspartame	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:11		
13	BRS	L20	7924	seed\$ and X-ray	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:12		Truncation Overflow. Return string from Server is: 5`0`0`SEE
14	BRS	L21	0	seed\$ and (("crystalliz\$").PN.)	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:12		Truncation Overflow. Return string from Server is: 5`0`0`SEE
15	BRS	L22	0	X-ray and (("crystalliz\$").PN.)	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:12		
16	BRS	L23	687	seed\$ and aspartame	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:12		Truncation Overflow. Return string from Server is: 5`0`0`SEE
17	BRS	L28	10511	seed adj crystal	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:13		
18	BRS	L29	18971	polymorph\$	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:13		
19	BRS	L31	44	neotame	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:13		
20	IS&R	L1	3	("5510508").PN.	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:13		

	Err ors
11	0
12	0
13	1
14	1
15	0
16	1
17	0
18	0
19	0
20	0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
21	IS&R	L3	3	("5773640").PN.	USPAT; EPO; JPO; DERVENT	2001/12/21 08:13		
22	BRS	L7	15	((("560/41").CCLS.) and crystalliz\$) and dimethylbut\$	USPAT; EPO; JPO; DERVENT	2001/12/21 08:13		
23	BRS	L10	5	neohexyl\$ and (("560/41").CCLS.)	USPAT; EPO; JPO; DERVENT	2001/12/21 08:13		
24	BRS	L14	5	((neohexyl\$ or dimethylbut\$) and (("560/41").CCLS.)) and seed	USPAT; EPO; JPO; DERVENT	2001/12/21 08:13		
25	BRS	L18	5	seed\$ and ((neohexyl\$ or dimethylbut\$) and aspartame)	USPAT; EPO; JPO; DERVENT	2001/12/21 08:13		Truncation Overflow. Return string from Server is: 5`0`0`SEE
26	IS&R	L19	3	("5480668").PN.	USPAT; EPO; JPO; DERVENT	2001/12/21 08:13		
27	BRS	L24	1	"5502238".PN.	USPAT	2001/12/21 08:13		
28	BRS	L25	10	((("560/41").CCLS.) and (seed\$ and aspartame)	USPAT; EPO; JPO; DERVENT	2001/12/21 08:13		Truncation Overflow. Return string from Server is: 5`627`627
29	BRS	L26	1	"5502238".PN.	USPAT	2001/12/21 08:13		
30	BRS	L27	2	5502238.URPN.	USPAT; EPO; JPO; DERVENT	2001/12/21 08:13		
31	BRS	L30	69	(seed adj crystal) and polymorph\$	USPAT; EPO; JPO; DERVENT	2001/12/21 08:13		

	Err ors
21	0
22	0
23	0
24	0
25	1
26	0
27	0
28	1
29	0
30	0
31	0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
32	BRS	L32	3	seed\$ and neotame	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:13		Truncation Overflow. Return string from Server is: 5`0`0`SEE
33	BRS	L33	3	5728862.pn.	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:13		
34	BRS	L34	2	3266871.pn.	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:31		
35	BRS	L35	3	9524420.pn.	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:31		
36	IS&R	L36	276	("560/40") .CCLS.	USPAT; EPO; JPO; DERWE NT	2001/12/21 08:49		

	Err ors
32	1
33	0
34	0
35	0
36	0

Connecting via Winsock to STN

Trying 3106016892...Open

```
Welcome to STN International!  Enter x:x
LOGINID:ssspta1623paz
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2
```

NEWS 1	Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Dec 17 The CA Lexicon available in the CAPLUS and CA files
NEWS 3	Feb 06 Engineering Information Encompass files have new names
NEWS 4	Feb 16 TOXLINE no longer being updated
NEWS 5	Apr 23 Search Derwent WPINDEX by chemical structure
NEWS 6	Apr 23 PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
NEWS 7	May 07 DGENE Reload
NEWS 8	Jun 20 Published patent applications (A1) are now in USPATFULL
NEWS 9	JUL 13 New SDI alert frequency now available in Derwent's DWPI and DPCI
NEWS 10	Aug 23 In-process records and more frequent updates now in MEDLINE
NEWS 11	Aug 23 PAGE IMAGES FOR 1947-1966 RECORDS IN CAPLUS AND CA
NEWS 12	Aug 23 Adis Newsletters (ADISNEWS) now available on STN
NEWS 13	Sep 17 IMSworld Pharmaceutical Company Directory name change to PHARMASEARCH
NEWS 14	Oct 09 Korean abstracts now included in Derwent World Patents Index
NEWS 15	Oct 09 Number of Derwent World Patents Index updates increased
NEWS 16	Oct 15 Calculated properties now in the REGISTRY/ZREGISTRY File
NEWS 17	Oct 22 Over 1 million reactions added to CASREACT
NEWS 18	Oct 22 DGENE GETSIM has been improved
NEWS 19	Oct 29 AAASD no longer available
NEWS 20	Nov 19 New Search Capabilities USPATFULL and USPAT2
NEWS 21	Nov 19 TOXCENTER(SM) - new toxicology file now available on STN
NEWS 22	Nov 29 COPPERLIT now available on STN
NEWS 23	Nov 29 DWPI revisions to NTIS and US Provisional Numbers
NEWS 24	Nov 30 Files VETU and VETB to have open access
NEWS 25	Dec 10 WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002
NEWS 26	Dec 10 DGENE BLAST Homology Search
NEWS 27	Dec 17 WELDASEARCH now available on STN
NEWS 28	Dec 17 STANDARDS now available on STN
NEWS 29	Dec 17 New fields for DPCI
NEWS 30	Dec 19 CAS Roles modified
NEWS 31	Dec 19 1907-1946 data and page images added to CA and CAplus
NEWS EXPRESS	August 15 CURRENT WINDOWS VERSION IS V6.0c, CURRENT MACINTOSH VERSION IS V6.0 (ENG) AND V6.0J (JP), AND CURRENT DISCOVER FILE IS DATED 07 AUGUST 2001
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 14, 2001 (20011214/UP).

NAME	CREATED	NOTES/TITLE
ALKYLATIN/L	13 DEC 2001	9 L-NUMBERS
ALL/L	TEMP	4 L-NUMBERS
AMINOKETSRCH/L	TEMP	37 L-NUMBERS
DIXAMINOKET/A	TEMP	41 ANSWERS IN FILE CAPLUS
EPOTHILONS/A	TEMP	7 ANSWERS IN FILE REGISTRY
INDIUMCL3/A	30 MAY 2001	1 ANSWER IN FILE REGISTRY
LASTSEARCH/L	TEMP	73 L-NUMBERS
LASTSEARCH/L	TEMP	11 L-NUMBERS
LTWENTAUTGFOR/A	04 AUG 2001	72 ANSWERS IN FILE CAPLUS
MARPATANSW/A	TEMP	164 ANSWERS IN FILE CAPLUS
MARPATDATA/A	TEMP	164 ANSWERS IN FILE MARPAT
NEOTAMECRYST/A	24 APR 2001	59 ANSWERS IN FILE CAPLUS
NVLARMFULGEN/A	19 APR 2001	196 ANSWERS IN FILE REGISTRY
POHBENZALDEH/A	10 JUL 2001	5519 ANSWERS IN FILE CAPLUS
PROSTACMPD15/A	01 AUG 2001	34 ANSWERS IN FILE CAPLUS
SELENOCMPDS/A	TEMP	4 ANSWERS IN FILE CAPLUS
STILBENES/L	TEMP	49 L-NUMBERS
TWOAMINOPOLY/Q	16 APR 2001	UPLOADED STRUCTURE
UPTAKECORE/A	TEMP	125 ANSWERS IN FILE CAPLUS

=>
NO SAVED SDI REQUESTS

FILE 'HOME' ENTERED AT 07:40:38 ON 21 DEC 2001

=> seed?

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

```
=> file cPLUS
COST IN U.S. DOLLARS
SINCE FILE      TOTAL
          ENTRY      SESSION
FULL ESTIMATED COST          0.15      0.30
```

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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 21 Dec 2001 VOL 135 ISS 26
FILE LAST UPDATED: 20 Dec 2001 (20011220/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

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CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

The CA Lexicon is now available in the Controlled Term (/CT) field. Enter HELP LEXICON for full details.

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```
=> resolution
    76146 RESOLUTION
    824 RESOLUTIONS
    76613 RESOLUTION
        (RESOLUTION OR RESOLUTIONS)
    220463 RESOLN
    4913 RESOLNS
    223034 RESOLN
        (RESOLN OR RESOLNS)
L1      255744 RESOLUTION
```

(RESOLUTION OR RESOLN)

=> seed?
L2 202730 SEED?

=> l1 and l2
L3 1595 L1 AND L2

=> crystal?
1368257 CRYSTAL?
283101 CRYST
1792 CRYSTS
284369 CRYST
(CRYST OR CRYSTS)
77037 CRYSTD
15189 CRYSTG
187734 CRYSTN
2160 CRYSTNS
189001 CRYSTN
(CRYSTN OR CRYSTNS)
L4 1630549 CRYSTAL?
(CRYSTAL? OR CRYST OR CRYSTD OR CRYSTG OR CRYSTN)

=> L3 AND L4
L5 659 L3 AND L4

=> L1(L) L2
L6 1241 L1(L) L2

=> L6(L) L3
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L6(L) L3'
L7 1241 L6(L) L3

=> L7 AND L4
L8 474 L7 AND L4

=> LOGOFF
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:HOLD
COST IN U.S. DOLLARS SINCE FILE TOTAL
SESSION
FULL ESTIMATED COST 5.96 6.26

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 07:43:34 ON 21 DEC 2001

Connecting via Winsock to STN

Trying 3106016892...Open

Welcome to STN International! Enter x:x
LOGINID:ssspta1623paz
PASSWORD:
* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 08:05:13 ON 21 DEC 2001
FILE 'CAPLUS' ENTERED AT 08:05:13 ON 21 DEC 2001
COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
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FULL ESTIMATED COST

6.29

6.59

=> dhis

L9 17 DHIS

=> d his

(FILE 'HOME' ENTERED AT 07:40:07 ON 21 DEC 2001)

FILE 'STNGUIDE' ENTERED AT 07:40:20 ON 21 DEC 2001

FILE 'HOME' ENTERED AT 07:40:38 ON 21 DEC 2001

FILE 'CAPLUS' ENTERED AT 07:40:56 ON 21 DEC 2001

L1 255744 RESOLUTION

L2 202730 SEED?

L3 1595 L1 AND L2

L4 1630549 CRYSTAL?

L5 659 L3 AND L4

L6 1241 L1(L) L2

L7 1241 L6(L) L3

L8 474 L7 AND L4

L9 17 DHIS

=> enantio?

L10 60072 ENANTIO?

=> l1(l)l10

L11 8849 L1(L) L10

=> l11(l)l2

L12 48 L11(L) L2

=> d l12 40-48 ti

L12 ANSWER 40 OF 48 CAPLUS COPYRIGHT 2001 ACS

TI Resolution of DL-glutamic acid and its salts

L12 ANSWER 41 OF 48 CAPLUS COPYRIGHT 2001 ACS

TI Resolution of DL-amino acids by preferential crystallization procedure.
I. Preparation of optically active alanines

L12 ANSWER 42 OF 48 CAPLUS COPYRIGHT 2001 ACS

TI Separation of racemic substances. Takekazu A kashi, Ko Ohno, Jiro Kato

L12 ANSWER 43 OF 48 CAPLUS COPYRIGHT 2001 ACS

TI Direct resolution of .alpha.-methyl-3,4-dihydroxyphenylalanine

L12 ANSWER 44 OF 48 CAPLUS COPYRIGHT 2001 ACS

TI The resolution of glutamic acid

L12 ANSWER 45 OF 48 CAPLUS COPYRIGHT 2001 ACS

TI Optical resolution of racemic substances

L12 ANSWER 46 OF 48 CAPLUS COPYRIGHT 2001 ACS

TI Resolution of racemic mixtures

L12 ANSWER 47 OF 48 CAPLUS COPYRIGHT 2001 ACS

TI Resolution of .beta.-ethoxyamines

L12 ANSWER 48 OF 48 CAPLUS COPYRIGHT 2001 ACS

TI Scopoline. VI. The constitution of scopolamine and of scopoline. The Hofmann degradation of scopoline

=> d 112 41-43 ti fbib abs

L12 ANSWER 41 OF 48 CAPLUS COPYRIGHT 2001 ACS
TI Resolution of DL-amino acids by preferential crystallization procedure.
I. Preparation of optically active alanines
AN 1968:487420 CAPLUS
DN 69:87420
TI Resolution of DL-amino acids by preferential crystallization procedure.
I. Preparation of optically active alanines
AU Chibata, I.; Yamada, S.; Yamamoto, M.; Wada, M.
CS Res. Lab., Tanabe Seiyaku Co., Ltd., Osaka, Japan
SO Experientia (1968), 24(6), 638-9
CODEN: EXPEAM
DT Journal
LA English
AB A method was established for the optical **resoln.** of DL-alanine using the insol. deriv. DL-alanine benzenesulfonate (I). DL-alanine is unsuitable for direct **resoln.** as it is sol. and forms a racemic compd. I was prep'd. by dissolving DL-, D-, or L-alanine in aq. PhSO₃H; and 52 g. I and 1.3 g. D-alanine benzenesulfonate (II) were dissolved in 200 ml. 97% aq. Me₂CO at elevated temp. and cooled to 25.degree.; the soln. was **seeded** with 0.2 g. II and allowed to stand 16 hrs. II was obtained in 6.6 g. yield. II (3 g.) was dissolved in 60 ml. H₂O and passed through a column of Amberlite 1R-120 in H-from. The D-alanine absorbed was eluted with N NH₄OH, concd. to dryness, and recrystd. from aq. MeOH to give 0.98 g. D-alanine, 91% yield. The mother liquor can be used repeatedly to sep. the other **enantiomorph** and give further **resoln.** D-alanine can be added to the ion-exchange effluent and I recovered.

L12 ANSWER 42 OF 48 CAPLUS COPYRIGHT 2001 ACS
TI Separation of racemic substances. Takekazu A kashi, Ko Ohno, Jiro Kato
AN 1966:477935 CAPLUS
DN 65:77935
OREF 65:14558b-d
TI Separation of racemic substances. Takekazu A kashi, Ko Ohno, Jiro Kato
IN Mizoguchi, Naomasa; Hara, Minoru; Ito, Kenkichi
PA Ajinomoto Co., Inc.
SO 4 pp.
DT Patent
LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3266871		19660816	US	
				JP	19600525

AB The app. for sepn. of a racemic substance having 2 corresponding **enantiomorphs** into the resp. **enantiomorphs** comprises a container sep'd. into 2 equal compartments by a screen having perforations of predetd. size; a means for continuously feeding a supersatd. soln. of the racemic substances; a supply of crystal **seeds** of one of the **enantiomorphs** in one of the compartments and a supply of crystal **seeds** of the other **enantiomorphs** in the other compartment. Each compartment has a means of stirring the material or soln. All racemates are capable of being sep'd. by selective deposition of one **enantiomorph** on the **seed** crystals of that

enantiomorph and are thus suitable for **resolution** in this equipment. This invention relates to the sepn. of racemic substances

whose crystals are conglomerates of the crystals of the corresponding optically active **enantiomorphs** and more particularly to the **resolution** of amino acids whose racemate crystals are conglomerates of crystals of the optically active isomers, particularly glutamic acid and its hydrochloride.

L12 ANSWER 43 OF 48 CAPLUS COPYRIGHT 2001 ACS
TI Direct resolution of .alpha.-methyl-3,4-dihydroxyphenylalanine
AN 1965:59211 CAPLUS
DN 62:59211
OREF 62:10510b-e
TI Direct resolution of .alpha.-methyl-3,4-dihydroxyphenylalanine
IN Jones, Robert T.; Krieger, Kenneth H.; Lago, James
PA Merck & Co., Inc.
SO 7 pp.
DT Patent
LA Unavailable
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
PI US 3158648		19641124	US	19620409

AB Selective crystn. of each **enantiomorph** of .alpha.-methyl-3-4-dihydroxyphenylalanine (I) from supersatd. solns. of racemic I provided a method for direct **resolution** by batch or continuous procedures. Thus, 37 g. racemic I was slurried at 35.degree. in 100 cc. N HCl. Filtration gave a satd. soln. contg. 34.6 g. I (61% as the HCl salt), which was **seeded** at 35.degree. with 7 g. hydrated L-I. The mixt. was cooled to 20.degree. in 30 min. and aged 1 hr. at 20.degree.. Filtration gave 14.1 g. L-I.1.5H₂O (100% pure, as shown by rotation of the Cu complex.) A 45-ml. portion of the mother liquors (contg. 3.65 g. HCl and 10.4 g. I with a 61% excess of D-I) was heated to 35.degree. and stirred with 2.4 g. racemate. After filtration, the soln. at 35.degree. was **seeded** with 2.7 g. hydrated D-I to yield 5.5 g. D-I (100% pure). The mother liquors then contained only racemic I and were used as the acid dissolving soln. for another run. DL-I [cryst. form 2A with x-ray peaks (2 .theta. Cu Ka) at 9.degree., 11.degree., and 23.degree.] (10 g.) was added to 50 cc. 0.5N HCl and treated as above to give L-I.1.5H₂O, Cu salt [.alpha.]₅₈₉ 170.degree. (26% yield of isomer). Similarly, 48 g. DL-I [form I, with x-ray peaks (2 .theta. Cu Ka) at 10.degree. and 13.degree.] was slurried in 100 cc. 2.0N HCl 1 hr. at 25.degree., the solids (0.9 g.) sep'd., the soln. **seeded** with 8 g. L-I, and 40 cc. 2N NaOH added at 0.5 cc./min. at 25.degree.. After 1 hr., filtration gave 18.5 g. L-I, [.alpha.]₅₈₉ 170.degree. (Cu salt). At 24.degree., 35 g. DL-I was slurried in 200 cc. 0.46M sq. SO₂ soln. 70 min., then pressure-filtered with N to remove 10.8 g. undissolved salts. Into 210 cc. of the filtrate **seeded** with 12.6 g. D-I stirred at 420 rpm. in a Morton flask N was passed 35 min. After aging 1 hr. at 24.degree., the slurry was pressure-filtered to give 14.6 g. D-I.1.5H₂O, [.alpha.]₅₈₉ -175.degree. (Cu salt). The mother liquors were titrated with NaOH to det. the SO₂ concn. (0.28M). Continuous crystn. was also carried out (app. described and procedures given). L-I was an antihypertensive agent. D-I had no hypotensive activity but had the same toxicity as L-I, so that the sepn. of isomers was of value.

=>
=> polymorph?
L13 114957 POLYMORPH?

=> d his

(FILE 'HOME' ENTERED AT 07:40:07 ON 21 DEC 2001)

FILE 'STNGUIDE' ENTERED AT 07:40:20 ON 21 DEC 2001

FILE 'HOME' ENTERED AT 07:40:38 ON 21 DEC 2001

FILE 'CPLUS' ENTERED AT 07:40:56 ON 21 DEC 2001

L1 255744 RESOLUTION
L2 202730 SEED?
L3 1595 L1 AND L2
L4 1630549 CRYSTAL?
L5 659 L3 AND L4
L6 1241 L1(L)L2
L7 1241 L6(L)L3
L8 474 L7 AND L4
L9 17 DHIS
L10 60072 ENANTIO?
L11 8849 L1(L)L10
L12 48 L11(L)L2
L13 114957 POLYMORPH?

=> l13 and l4
L14 14958 L13 AND L4

=> preferen?
L15 127248 PREFEREN?

=> l14 and l15
L16 134 L14 AND L15

=> l2 and l16
L17 2 L2 AND L16

=> d l17 1-2 ti

L17 ANSWER 1 OF 2 CPLUS COPYRIGHT 2001 ACS
TI Investigations on, the, reciprocal ternary system
(.+-.)-2-phenylpropionic
acid-(.+-.)-.alpha.-methylbenzylamine. Impact of an unstable racemic
compound on the simultaneous resolution of chiral acids and bases by
preferential crystallisation

L17 ANSWER 2 OF 2 CPLUS COPYRIGHT 2001 ACS
TI Solubilities and crystallization behavior of cimetidine
polymorphic forms A and B

=> d l17 1-2 ti fbib abs

L17 ANSWER 1 OF 2 CPLUS COPYRIGHT 2001 ACS
TI Investigations on, the, reciprocal ternary system
(.+-.)-2-phenylpropionic
acid-(.+-.)-.alpha.-methylbenzylamine. Impact of an unstable racemic
compound on the simultaneous resolution of chiral acids and bases by
preferential crystallisation

AN 2001:863973 CAPLUS
TI Investigations on, the, reciprocal ternary system
(.+-.)-2-phenylpropionic
acid-(.+-.)-.alpha.-methylbenzylamine. Impact of an unstable racemic
compound on the simultaneous resolution of chiral acids and bases by
preferential crystallisation
AU Dufour, Fabrice; Gervais, Claire; Petit, Marie-Noelle; Perez, Guy;
Coquerel, Gerard
CS Unite de Croissance Cristalline et de Modelisation Moleculaire (UC2M2),
UPRES EA2659 IRCOF, Universite de Rouen, Mont-Saint-Aignan, 76821, Fr.
SO J. Chem. Soc., Perkin Trans. 2 (2001), (10), 2022-2036
CODEN: JCSPGI; ISSN: 1472-779X
PB Royal Society of Chemistry
DT Journal
LA English
AB New studies on the reciprocal quaternary system (.+-.)-2-phenylpropionic acid [(.+-.)-1]-(.+-.)-.alpha.-methylbenzylamine [(.-.)-2]-ethanol confirm the presence of a stable conglomerate (p and p' salts), but polymorphism of the n salt as well as an unstable racemic compd. have been detected. The kinetic parameters of the irreversible transformation of the unstable racemic compd. into the stable conglomerate have been detd. from exptl. X-ray powder diffraction data. The simultaneous resoln. of (.+-.)-1 and (.+-.)-2 by means of **preferential crystn.** (auto-seeded process) of the stable pair of enantiomorphous salts, was achieved. However, the entrainment effect (given by the max. enantiomeric excess of the counter enantiomer in the mother soln. reached at the end of the stereoselective crystn. (eemax = 5.2%)) is limited. This is consistent with the existence of the unstable racemic compd., as accounted for in a recent model of mol. interactions occurring at the **crystal**-mother soln. interface in the course of **preferential crystn.** An extended version of this model rationalises a kinetic advantage of the crystal growth rate of racemic compds. over the conglomerates as well as a large supersatn. capacity of the mother soln. in such a reciprocal quaternary system (.+-.)-acid, (.+-.)-base and solvent.

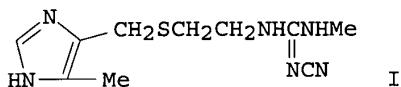
RE.CNT 29

RE

- (1) Beilles, S; Chem Eng Sci 2001, V56, P2281 CAPLUS
- (2) Boultif, A; J Appl Crystallogr 1991, V24, P987 CAPLUS
- (4) Caira, M; J Chem Soc, Perkin Trans 2 1997, P763 CAPLUS
- (5) Coquerel, G; EP 0720595 B1 1995 CAPLUS
- (12) Houllemare-Druot, S; J Chem Soc, Perkin Trans 2 1998, P2211 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2001 ACS
TI Solubilities and **crystallization** behavior of cimetidine
polymorphic forms A and B
AN 1991:253938 CAPLUS
DN 114:253938
TI Solubilities and **crystallization** behavior of cimetidine
polymorphic forms A and B
AU Sudo, Shogo; Sato, Katsutoshi; Harano, Yoshio
CS Fac. Eng., Osaka City Univ., Osaka, 558, Japan
SO J. Chem. Eng. Jpn. (1991), 24(2), 237-42
CODEN: JCEJAQ; ISSN: 0021-9592
DT Journal
LA English
GI



AB For the **polymorphic** forms A and B of the org. compd. cimetidine (I), their solubilities in H₂O, 2-propanol (IPA) and H₂O-IPA mixt. and their **crystn.** behavior, mainly from IPA, were studied. Form A is more sol. than form B in any solvent and the solubilities of both forms

increased in the order H₂O, IPA, H₂O-IPA mixt. In IPA as a solvent, at high supersatn. ratio, form A, which is thermodynamically a metastable form, was **preferentially crystd.** regardless of the presence or absence and the form of **seeds.** Phase transition from form A to B was not obsd.

=> d his

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FILE 'STNGUIDE' ENTERED AT 07:40:20 ON 21 DEC 2001

FILE 'HOME' ENTERED AT 07:40:38 ON 21 DEC 2001

FILE 'CAPLUS' ENTERED AT 07:40:56 ON 21 DEC 2001

L1 255744 RESOLUTION
 L2 202730 SEED?
 L3 1595 L1 AND L2
 L4 1630549 CRYSTAL?
 L5 659 L3 AND L4
 L6 1241 L1(L)L2
 L7 1241 L6(L)L3
 L8 474 L7 AND L4
 L9 17 DHIS
 L10 60072 ENANTIO?
 L11 8849 L1(L)L10
 L12 48 L11(L)L2
 L13 114957 POLYMORPH?
 L14 14958 L13 AND L4
 L15 127248 PREFEREN?
 L16 134 L14 AND L15
 L17 2 L2 AND L16

=> apartame

L18 1 APARTAME

=> aspartame

2544 ASPARTAME
 6 ASPARTAMES
 L19 2544 ASPARTAME
 (ASPARTAME OR ASPARTAMES)

=> l19 and l13

L20 10 L19 AND L13

=> l2 and l10

L21 361 L2 AND L10

=> 120 and 110
L22 0 L20 AND L10

=> d 120 1-10 ti

L20 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2001 ACS
TI Investigation of **Polymorphism** in **Aspartame** and Neotame
Using Solid-State NMR Spectroscopy

L20 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2001 ACS
TI Analysis of **polymorphism** in crystalline organic compounds using
solid-state C-13 NMR spectroscopy and X-ray diffraction.

L20 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2001 ACS
TI Two-Dimensional High-Speed CP/MAS NMR Spectroscopy of **Polymorphs**
. 1. Uniformly 13C-Labeled **Aspartame**

L20 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2001 ACS
TI How **aspartame** prevents the toxicity of ochratoxin A

L20 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2001 ACS
TI Hydration and Dehydration Behavior of **Aspartame** Hemihydrate

L20 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2001 ACS
TI Solid-State Characterization of Two **Polymorphs** of
Aspartame Hemihydrate

L20 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2001 ACS
TI Preparation of a **polymorph** of **aspartame** (APM II).

L20 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2001 ACS
TI Use of a Raman microscope in conformational analysis of a peptide with
polymorphism

L20 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2001 ACS
TI Quality control and therapeutic activity optimization by thermoanalytical
methods

L20 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2001 ACS
TI Thermal analysis methods for pharmacopeial materials

=> d 120 7 ti fbib abs

L20 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2001 ACS
TI Preparation of a **polymorph** of **aspartame** (APM II).
AN 1995:994905 CAPLUS
DN 124:56743
TI Preparation of a **polymorph** of **aspartame** (APM II).
IN Garti, Nissim; Milhofer, Helga
PA Yissum Research Development Co., Israel; Whalley, Kevin
SO PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 9524420	A1	19950914	WO 1995-GB496	19950308
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG,				

MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ,
 TT, UA
 RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT,
 LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,
 SN, TD, TG

AU 9518552	A1 19950925	IL 1994-108907	19940309
		AU 1995-18552	19950308
		IL 1994-108907	19940309
		WO 1995-GB496	19950308

AB A polymorph of aspartame, designated APM II,
 characterized by X-ray diffraction powder patterns, an IR diffraction
 pattern, and differential scanning calorimetric patterns, was prep'd.
 Thus, aspartame was crystd. from a pH 5.3 buffer prep'd. from
 potassium hydrogen phthalate and NaOH in H2O at 21.degree. to give APM

II.
 Sweetening compns. contg. APM II are claimed.

=> logoff hold			
COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION	
FULL ESTIMATED COST	48.71	49.01	
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION	
CA SUBSCRIBER PRICE	-3.53	-3.53	

SESSION WILL BE HELD FOR 60 MINUTES
 STN INTERNATIONAL SESSION SUSPENDED AT 08:31:20 ON 21 DEC 2001

Connecting via Winsock to STN

Trying 3106016892...Open

Welcome to STN International! Enter x:x
 LOGINID:ssspta1623paz
 PASSWORD:
 * * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
 SESSION RESUMED IN FILE 'CAPLUS' AT 08:34:36 ON 21 DEC 2001
 FILE 'CAPLUS' ENTERED AT 08:34:36 ON 21 DEC 2001
 COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION	
FULL ESTIMATED COST	48.71	49.01	
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION	
CA SUBSCRIBER PRICE	-3.53	-3.53	

=> d his

(FILE 'HOME' ENTERED AT 07:40:07 ON 21 DEC 2001)

FILE 'STNGUIDE' ENTERED AT 07:40:20 ON 21 DEC 2001

FILE 'HOME' ENTERED AT 07:40:38 ON 21 DEC 2001

FILE 'CAPLUS' ENTERED AT 07:40:56 ON 21 DEC 2001

L1 255744 RESOLUTION
 L2 202730 SEED?

L3 1595 L1 AND L2
L4 1630549 CRYSTAL?
L5 659 L3 AND L4
L6 1241 L1(L) L2
L7 1241 L6(L) L3
L8 474 L7 AND L4
L9 17 DHIS
L10 60072 ENANTIO?
L11 8849 L1(L) L10
L12 48 L11(L) L2
L13 114957 POLYMORPH?
L14 14958 L13 AND L4
L15 127248 PREFEREN?
L16 134 L14 AND L15
L17 2 L2 AND L16
L18 1 APARTAME
L19 2544 ASPARTAME
L20 10 L19 AND L13
L21 361 L2 AND L10
L22 0 L20 AND L10

=> l15(l) L4
L23 11974 L15(L) L4

=> l23 and l4
L24 11974 L23 AND L4

=> l13 and l23
L25 122 L13 AND L23

=> l2 and l25
L26 2 L2 AND L25

=> l26 not l20
L27 2 L26 NOT L20

=> l26 not l17
L28 0 L26 NOT L17

=> l13 and l2
L29 1667 L13 AND L2

=> l29 and l4
L30 236 L29 AND L4

=> l30 and l15
L31 2 L30 AND L15

=> logoff hold
COST IN U.S. DOLLARS SINCE FILE TOTAL
SESSION
FULL ESTIMATED COST ENTRY 51.96 52.26

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL
SESSION
CA SUBSCRIBER PRICE ENTRY -3.53 -3.53

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 08:40:44 ON 21 DEC 2001

Connecting via Winsock to STN

Trying 3106016892...Open

Welcome to STN International! Enter x:x
LOGINID:ssspta1623paz
PASSWORD:
* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 09:05:02 ON 21 DEC 2001
FILE 'CAPLUS' ENTERED AT 09:05:02 ON 21 DEC 2001
COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	51.96	52.26
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.53	-3.53

=> d his

(FILE 'HOME' ENTERED AT 07:40:07 ON 21 DEC 2001)

FILE 'STNGUIDE' ENTERED AT 07:40:20 ON 21 DEC 2001

FILE 'HOME' ENTERED AT 07:40:38 ON 21 DEC 2001

FILE 'CAPLUS' ENTERED AT 07:40:56 ON 21 DEC 2001

L1	255744	RESOLUTION
L2	202730	SEED?
L3	1595	L1 AND L2
L4	1630549	CRYSTAL?
L5	659	L3 AND L4
L6	1241	L1(L) L2
L7	1241	L6(L) L3
L8	474	L7 AND L4
L9	17	DHIS
L10	60072	ENANTIO?
L11	8849	L1(L) L10
L12	48	L11(L) L2
L13	114957	POLYMORPH?
L14	14958	L13 AND L4
L15	127248	PREFEREN?
L16	134	L14 AND L15
L17	2	L2 AND L16
L18	1	APARTAME
L19	2544	ASPARTAME
L20	10	L19 AND L13
L21	361	L2 AND L10
L22	0	L20 AND L10
L23	11974	L15(L) L4
L24	11974	L23 AND L4
L25	122	L13 AND L23
L26	2	L2 AND L25
L27	2	L26 NOT L20
L28	0	L26 NOT L17
L29	1667	L13 AND L2
L30	236	L29 AND L4
L31	2	L30 AND L15

=> formation

2122989 FORMATION
48094 FORMATIONS
L32 2150884 FORMATION
(FORMATION OR FORMATIONS)

=> 115 (1)132
L33 15479 L15 (L)L32

=> 133 and 113
L34 120 L33 AND L13

=> 12 and 134
L35 1 L2 AND L34

=> 135 not 117
L36 1 L35 NOT L17

=> d 136 ti fbbib abs

L36 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
TI The genetics and embryology of Taiwan fir (*Abies kawakamii* (Hayata) Ito)
AN 1999:68561 CAPLUS
DN 130:234763
TI The genetics and embryology of Taiwan fir (*Abies kawakamii* (Hayata) Ito)
AU Kormutak, Andrej; Yang, Jenq-Chuan
CS Institute of Plant Genetics, Slovak Academy of Science, Nitra, Slovakia
SO Taiwan Linye Kexue (1998), 13(1, Suppl.), 1-78
CODEN: TLKEFF; ISSN: 1026-4469
PB Taiwan Forestry Research Institute
DT Journal
LA Chinese
AB The genetic study of Taiwan fir (*Abies kawakamii* (Hayata) Ito) was undertaken aiming to elucidate the genetic status of the species within the genus *Abies*, as well as to clarify the causes of extremely low quality of its seeds. At the level of chloroplast and genomic DNAs, the species exhibits the closest relationship with *A. homolepis*, both of which belong taxonomically to the section Homolepides. Within the group of 15 *Abies* species compared so far, the PCR/RFLP profiles of cpDNA and RAPD amplification patterns of the above species deviate not only from the genetically uniform group of Mediterranean species, *A. alba*, *A. cephalonica*, *A. nordmanniana*, *A. cilicica*, *A. pinsapo*, and *A. numidica*, but also from the species *A. nephrolepis*, *A. sachalinensis*, *A. veitchii*, and *A. koreana* of the section Elate, all of which are of Asian origin. Being genetically heterogeneous, Asian firs resemble the North American species *A. concolor* and *A. grandis* of the section Grandes and *A. procera* of the section Nobiles which have also been found to be genetically differentiated. The results of the DNA study have closely correlated the established crossability relationship between *A. kawakamii* and some other representatives of firs studied so far. The compatible hybridol. relationship is characteristic only for the interspecific combination *A. kawakamii* .times. *A. homolepis*, as contrasted with a strong reproductive isolation of Taiwan fir from *A. lasiocarpa*, *A. concolor*, *A. alba*, *A. cephalonica*, and *A. cilicica*, resp. The prezygotic hybridol. barrier was found to be responsible for fertilization failures in the interspecific crossings *A. kawakamii* .times. *A. alba* and *A. kawakamii* .times. *A. cephalonica*. Taken together, the results of DNA study and artificial hybridization preferentially substantiate the delineation of individual sections within the genus *Abies* as proposed by Liu (1971). At the intraspecific level, Taiwan fir seems to share a rather high degree of

genetic diversity as evidenced by the mean no. of 2.2 alleles per locus and the av. heterozygosity, h_e , of 0.283. The coeff. of genetic distance based on the isoenzyme **polymorphism** of 2 *A. kawakamii* populations has accordingly been found to av. 0.087 suggesting considerable intraspecific differentiation. The process of sexual reprodn. of *A. kawakamii* was cytol. investigated from the standpoint of both pollen and ovule development covering the period from differentiated pollen mother cells and megasporangium mother cells until the stages corresponding to the shedding of mature pollen and **seeds**. As far as pollen **formation** is concerned, the developmental pattern is comparable with those obsd. in other species of firs including a high sensitivity of the species' microsporogenesis to abrupt declines of temp. The same is true of the viability parameters of *A. kawakamii* pollen. By its av. germinability of 85.7% and the length of pollen tubes averaging 379.7 μm , the pollen of Taiwan fir was found to be at least comparable to pollen fertility typical for other *Abies* species. The conclusion was therefore drawn ruling out low fertility of *A. kawakamii* pollen as a primary cause of the poor quality of its **seeds**. Considerable variation was obsd. between individual study trees with regard to both pollen body size and fertility of pollen grains, which was not, however, related to the elevational distribution of the trees. The course of the fertilization process is illustrated with regard to both the prezygotic and postzygotic stages of ovule development with special ref. to the nature of involved retardant factors. The high frequency of polyembryony has, in this connection, been shown to be the most remarkable feature of *A. kawakamii* embryogeny, shared by an overwhelming majority of the ovules processed. On the contrary, the abortive development of embryos was found

to represent the most divergent aspect of the species' embryogeny by which Taiwan fir deviates strikingly from the other species of firs in which the process of embryogeny has previously been illustrated. Encompassing both the early and advanced stages of embryogenesis, abortion was shown to be primarily responsible for the low quality of *A. kawakamii* **seeds**.

Except for this disturbance, the deterioration of female gametophyte as well as archegonia degeneration caused by the inhibition of pollen germination at the top of nucellus were found at the prezygotic stages resulting in abortion of a small portion of pollinated ovules.

=> d 134 110-120 ti

L34 ANSWER 110 OF 120 CAPLUS COPYRIGHT 2001 ACS
TI Particle emission and related morphological changes occurring during the sublimation of graphitic carbons

L34 ANSWER 111 OF 120 CAPLUS COPYRIGHT 2001 ACS
TI Mechanism of regulation of adenylate cyclase activity in human **polymorphonuclear** leukocytes by calcium, guanosyl nucleotides, and positive effectors

L34 ANSWER 112 OF 120 CAPLUS COPYRIGHT 2001 ACS
TI Solid-state chemistry of organic polyvalent iodine compounds. I. Crystal structures of two **polymorphs** of 1-(2'-iodobenzoyloxy)-1,2-benzoiodoxolin-3-one

L34 ANSWER 113 OF 120 CAPLUS COPYRIGHT 2001 ACS
TI Glycolate dehydrogenase in green algae

L34 ANSWER 114 OF 120 CAPLUS COPYRIGHT 2001 ACS

TI Recrystallization of cold-worked titanium alloys

L34 ANSWER 115 OF 120 CAPLUS COPYRIGHT 2001 ACS

TI Hydrogen peroxide production during NADPH oxidation by the granule fraction of phagocytosing **polymorphonuclear** leukocytes

L34 ANSWER 116 OF 120 CAPLUS COPYRIGHT 2001 ACS

TI Polymer models and properties of boric anhydride and of borate glasses

L34 ANSWER 117 OF 120 CAPLUS COPYRIGHT 2001 ACS

TI The organic matrix of the oyster shell

L34 ANSWER 118 OF 120 CAPLUS COPYRIGHT 2001 ACS

TI Thermal formation of etch pits after **polymorphic** transformation

L34 ANSWER 119 OF 120 CAPLUS COPYRIGHT 2001 ACS

TI Compounds related to the steroid hormones. VI. Synthesis of the 9. α .fluoro-16. β .-methyl derivatives of hydrocortisone and prednisolone

L34 ANSWER 120 OF 120 CAPLUS COPYRIGHT 2001 ACS

TI External shape and surface growth of crystalline products in technological processes

=> d 134 120 ti fbib abs

L34 ANSWER 120 OF 120 CAPLUS COPYRIGHT 2001 ACS

TI External shape and surface growth of crystalline products in technological processes

AN 1958:107832 CAPLUS

DN 52:107832

OREF 52:19071a-c

TI External shape and surface growth of crystalline products in technological processes

AU Grzymek, Jerzy

SO Konf. Teoret. Chemikow Polskich, I-sza, Bierutowice (1954), Volume Date 1952 353-86

DT Journal

LA Unavailable

AB Numerous examples are presented, e.g. K₂SO₄, MgSO₄.7H₂O, and KNO₃, to illustrate the effect of supersatn. of soln., chem. compn. of medium, and appearance of **polymorphic** modifications during crystn. on the shape and surface growth of crystals. In the course of tech. treatments certain axis ratios are found with **preference**, their creation being induced by the temp. gradients ordinarily used in the crystn. The occurrence of **polymorphism** is discussed with 2 CaO.SiO₂ as example, which occurs in 3 modifications and which are important in the cement industry. A longer discussion is devoted to cements and concretes, where the effects of CaSO₄ are discussed in the **formation** of other compds., crystals, crystal habit, and crystal sizes. 44 references.

=> 133 and 12

L37 163 L33 AND L2

=> 137 and 14
L38 44 L37 AND L4

=> d 138 33-44 ti

L38 ANSWER 33 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Epitaxial growth of calcium oxalate on uric acid

L38 ANSWER 34 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Optical resolution of the 3-aminobenzoic acid salt of (.-+.)-2-amino-1-phenylethanol by preferential **crystallization**

L38 ANSWER 35 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Kinetics and mechanisms of the reaction of zoisite to anorthite under hydrothermal conditions: reaction phenomenology away from the equilibrium region

L38 ANSWER 36 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI 1,3-.beta.-D-Glucanases from *Pisum sativum* **seedlings**. II.
Substrate specificities and enzymic action patterns

L38 ANSWER 37 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI A complexity in the solidification behavior of molten yttrium aluminum garnet (Y₃Al₅O₁₂)

L38 ANSWER 38 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Morphological and x-ray studies of diamonds grown on a **seed**

L38 ANSWER 39 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Growth of potassium chloride **crystals** from aqueous solutions.
I. Effect of lead chloride

L38 ANSWER 40 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Tranquilizing agents. Xanthene- and thioxanthene.DELTA.9,.gamma.-propylamines and related compounds

L38 ANSWER 41 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Synthetic mica

L38 ANSWER 42 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Growth of monocrystals of germanium from an under-cooled melt

L38 ANSWER 43 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Investigations in the **crystal** chemistry of silicates. III. The relation hematite-microcline

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TI Adsorption and **crystal** form

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TI Preparation of optically active triazole derivative by optical resolution

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TI **Crystalline** imperfections in 4H SiC grown with a **seeded** Lely method

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TI Controlled heterogeneous nucleation of melt-textured yttrium barium copper oxide (YBa₂Cu₃O_{6+x}) by addition of alumina particles

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TI Radiation induced effects in ion beam synthesis of erbium silicide

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TI An ultrastructural study of the effects of acidic phospholipid substitutions on calcium phosphate precipitation in anionic liposomes

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TI Endotaxial growth of cobalt disilicide within (111) oriented silicon in a molecular beam epitaxy system

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TI The study of rare earth dodecaborides zone melting process

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TI Growth of cubic boron nitride on diamond particles by microwave plasma enhanced chemical vapor deposition

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TI Observations of growth process of chemically vapor deposited diamond single **crystal**

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TI **Seed** shape dependence of silicon solid-phase epitaxy: preferential facet growth

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TI Effect of copper ions on the **crystallization** of Bayer aluminum trihydroxide

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TI Electrodeposition of Co + Ni alloys on modified silicon substrates

L38 ANSWER 12 OF 44 CAPLUS COPYRIGHT 2001 ACS
TI Transmission electron microscopy and Raman analysis of the **crystallization** process of a-Si on glass for low **seed** density

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TI Influence of the hydrophobic character of structure-directing agents for the synthesis of pure-silica zeolites

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TI Carbohydrate Binding, Quaternary Structure and a Novel Hydrophobic Binding
Site in Two Legume Lectin Oligomers from *Dolichos biflorus*

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TI On the spinel precipitation in Al-doped Ni_{1-x}O

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TI In-situ TEM **crystallization** of silicate glass films on Al₂O₃

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TI Growth of silicalite-1 films on gold substrates

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TI A study on the precipitation of radial alumina trihydrate

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TI Growth behavior of silicalite and ZSM-5 **seed crystals**
in different reaction media

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TI Microstructure and polytype of in situ-toughened silicon carbide

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TI Unusual texturing of Ar+-sputtered InP surfaces associated with Ni-
seeding

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